

Title (en)

A composite tubular woven seal for an inner compressor discharge case

Title (de)

Rohrförmige Verbundgewebedichtung für das Auslassgehäuse eines Innenverdichters

Title (fr)

Joint composite tissé de section tubulaire pour carter de décharge d'un compresseur interne

Publication

EP 1327801 A3 20040128 (EN)

Application

EP 03250134 A 20030109

Priority

US 4502302 A 20020115

Abstract (en)

[origin: EP1327801A2] Upper and lower halves (28, 30) of the inner barrel (22) of a compressor for a turbine are bolted to one another along a horizontal midline joint with metal-to-metal surface contact. Elongated grooves (36) are provided in the margin (34) of one of the barrel halves. Elongated composite tubular woven seals (36) are provided in the grooves, the seals having a diameter in excess of the depth of the grooves. The seals comprise an inner woven metal core (42) surrounded by an annular silica fiber layer (44), in turn surrounded by a metal foil (46) with an outer protective covering of a braided stainless steel (48). Upon joining the upper and lower halves, the compliant seal is crushed within the groove, maintaining a seal between the barrel halves in the event of warpage of the compressor casing during turbine operation. <IMAGE>

IPC 1-7

F16J 15/12; **F16J 15/08**; **F02C 7/28**; **F01D 11/00**

IPC 8 full level

F04D 29/08 (2006.01); **F16J 15/08** (2006.01); **F16J 15/12** (2006.01)

CPC (source: EP KR US)

F02C 7/28 (2013.01 - KR); **F04D 29/083** (2013.01 - EP US); **F16J 15/0812** (2013.01 - EP US); **F16J 15/121** (2013.01 - EP US); **F16J 15/128** (2013.01 - EP US)

Citation (search report)

- [X] US 5253875 A 19931019 - GENTILE RICHARD W [US]
- [A] US 3894742 A 19750715 - TRELEASE ROBERT B

Cited by

EP2372200A1; GB2576897A; CN111059381A; GB2395531A; GB2395531B; US8231128B2; US8845272B2

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